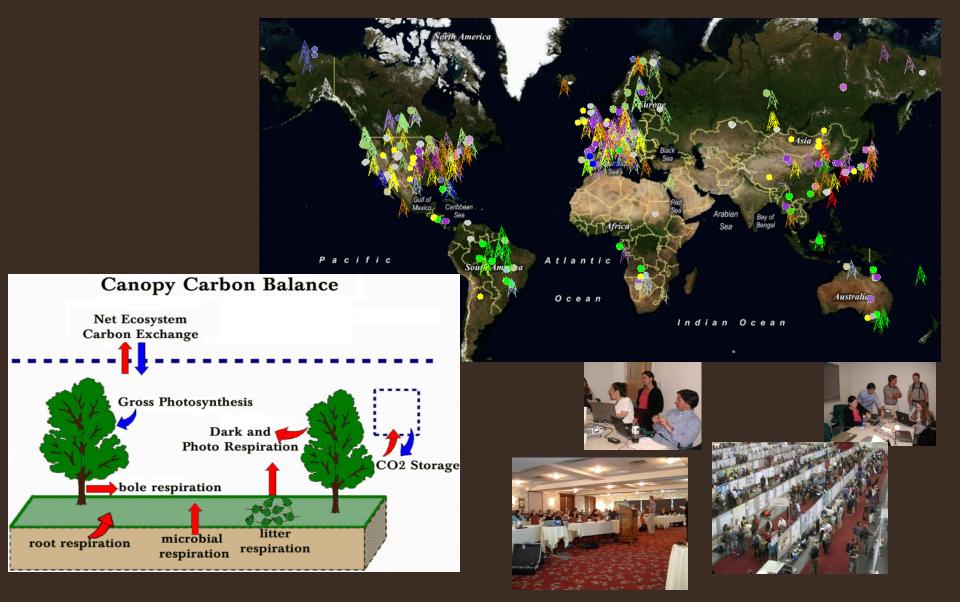
# A DATA CENTERED COLLABORATION PORTAL TO SUPPORT GLOBAL CARBON-FLUX ANALYSIS

Deb Agarwal (BWC), Marty Humphrey (Uva), and Norm Beekwilder (Uva)

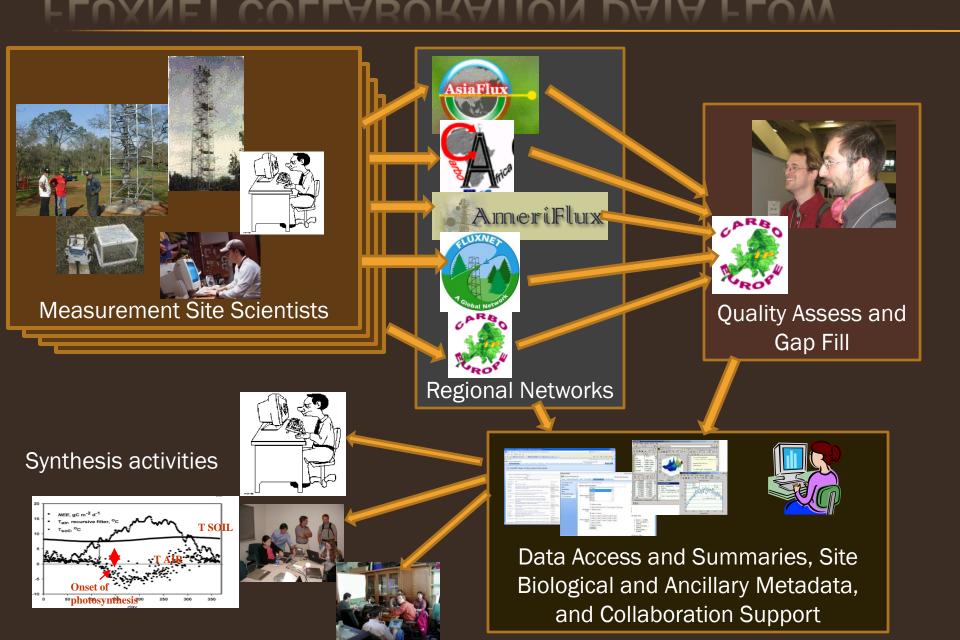
## FLUXNET GLOBAL CARBON FLUX NETWORK



#### FLUXNET SYNTHESIS WORKSHOPS

- Marconi Workshop June 2000 Marconi Conference Center, California
  - Data from 38 sites
  - ~96 site years of data
  - 17 half/hourly variables
  - 15 synthesis papers published in a special issue of the Agriculture and Forest Meteorology, Volume 113, 2002
- La Thuile Workshop February 2007 La Thuile, Italy
  - Data from 253 sites (sensor, derived, and ancillary)
  - ~960 site years of data
  - 41 half/hourly variables
  - ~70 active synthesis papers underway

# FLUXNET COLLABORATION DATA FLOW



#### SYNTHESIS COLLABORATION INTERACTIONS



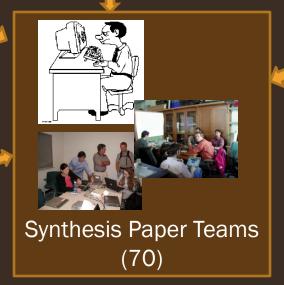
- Ancillary site data
- Data usage permission
- Credit/co-authorship
- Contribution to analysis

Quality and Gap Fill (2)

- Clarification
- Correction
- Interpretation

Steering Committee of Regional Networks

Permission to pursue synthesis activity on the data





- •Data access, updates, and corrections
- Collaboration support
- •Information on other teams

## FLUXDATA PORTAL USERS/USES

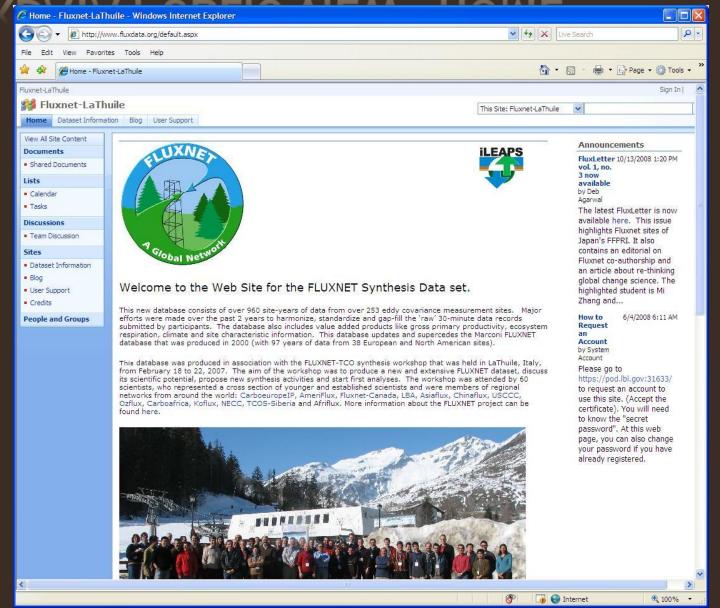
- Synthesis teams
  - Site selection and communication with site scientists
  - Data access (ancillary and flux/meteorological)
  - Data analysis support
- Site Measurement Scientists
  - Information about and communication with synthesis teams
  - Correct site ancillary information
  - Access the FLUXNET version of site data
- Public
  - Potential synthesis activity investigation
  - Funding agent verification of funding value
  - Modeler understanding of measurements
  - Updated information about the collaboration

#### FLUXDATA DESIGN PHILOSOPHY

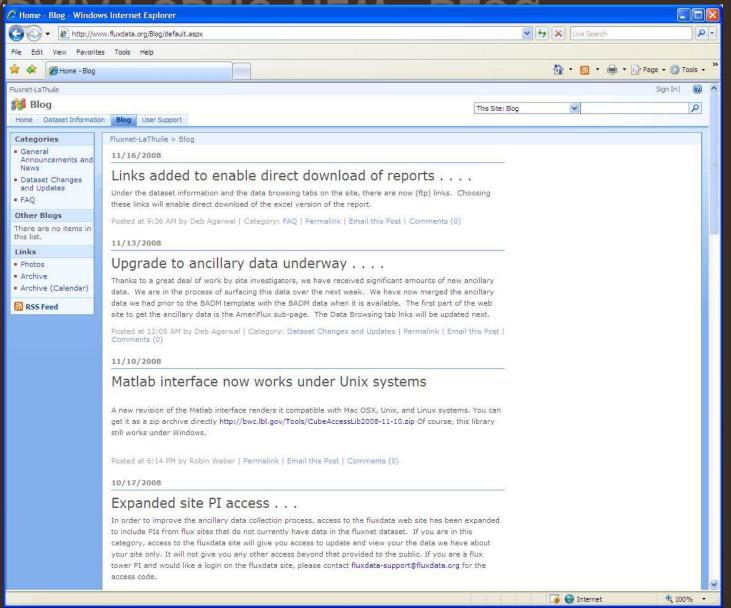
- Minimize the barrier to entry
- Focus on functionality targeted at improving the science experience (get familiar with the science)
- Include critical content needed by a majority of collaborators
- Avoid adding extraneous functionality
- Listen to the target scientists (learn some of their science)
- Develop a relationship of mutual trust

Anticipate changes in users' practices due to introduction of collaborative tools

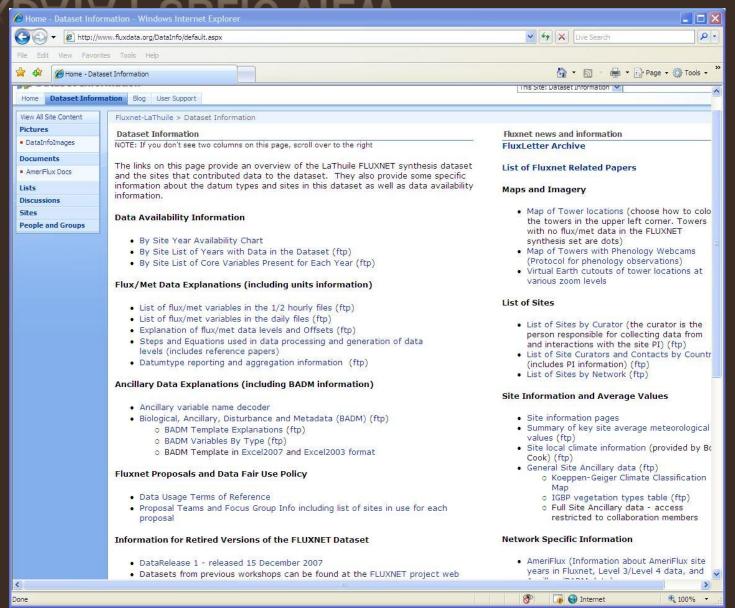
## FLUXDATA PUBLIC VIEW - HOME



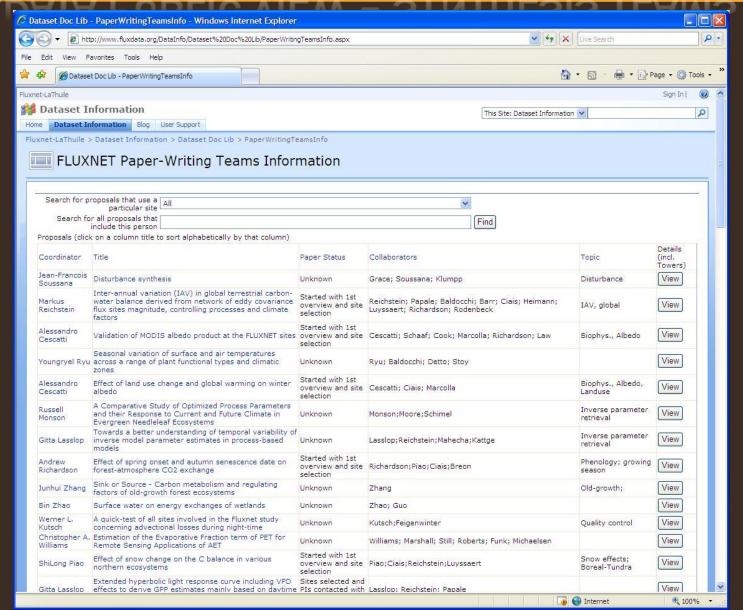
## FLUXDATA PUBLIC VIEW - BLOG



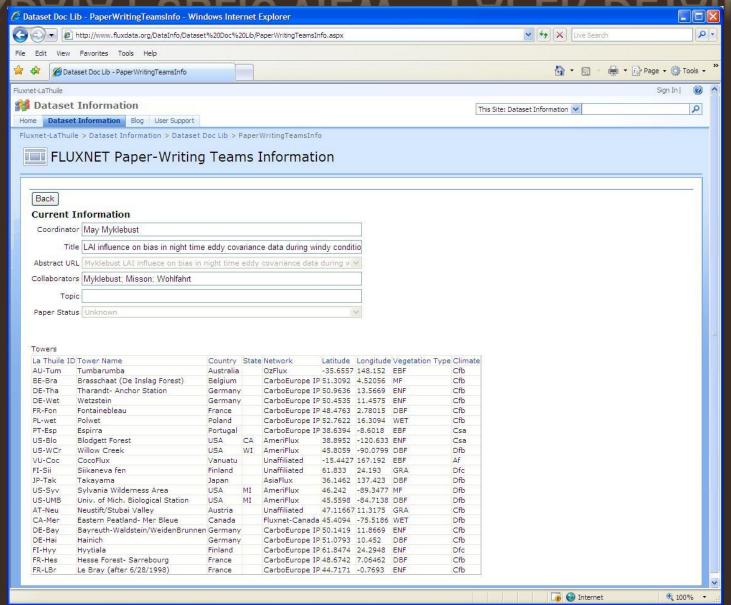
#### FLUXDATA PUBLIC VIEW



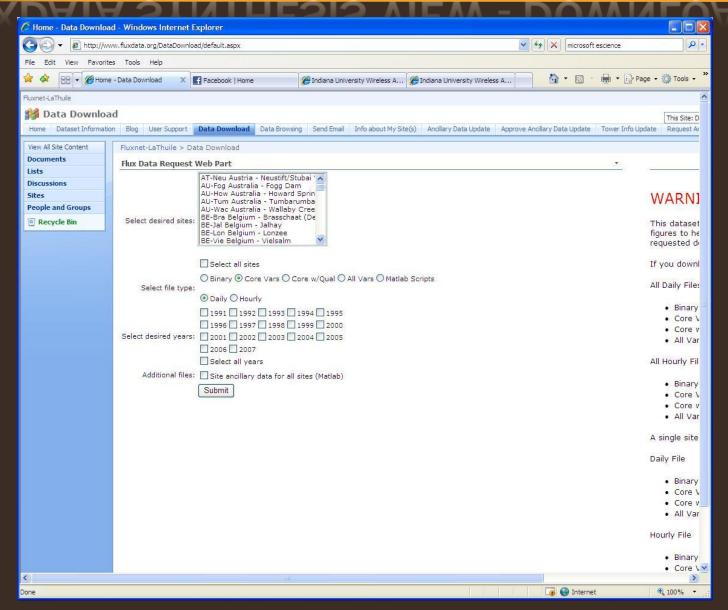
#### FLUXDATA PUBLIC VIEW - SYNTHESIS TEAMS



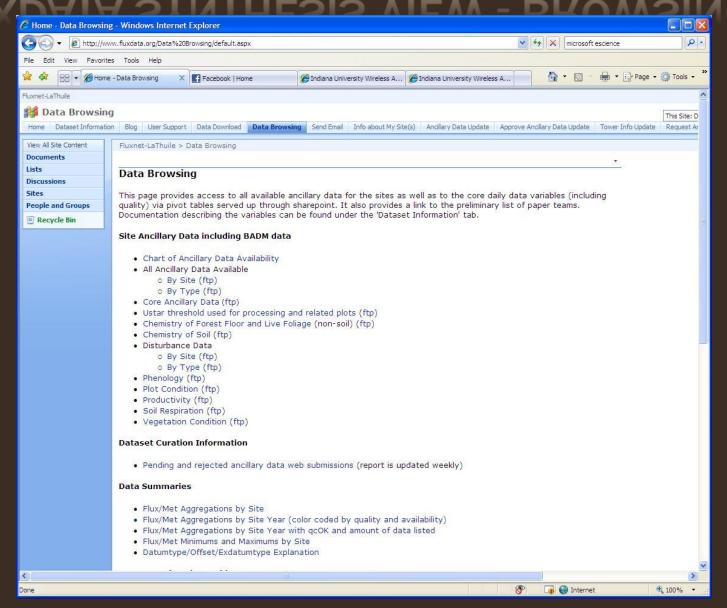
## FLUXDATA PUBLIC VIEW - PAPER DETAIL



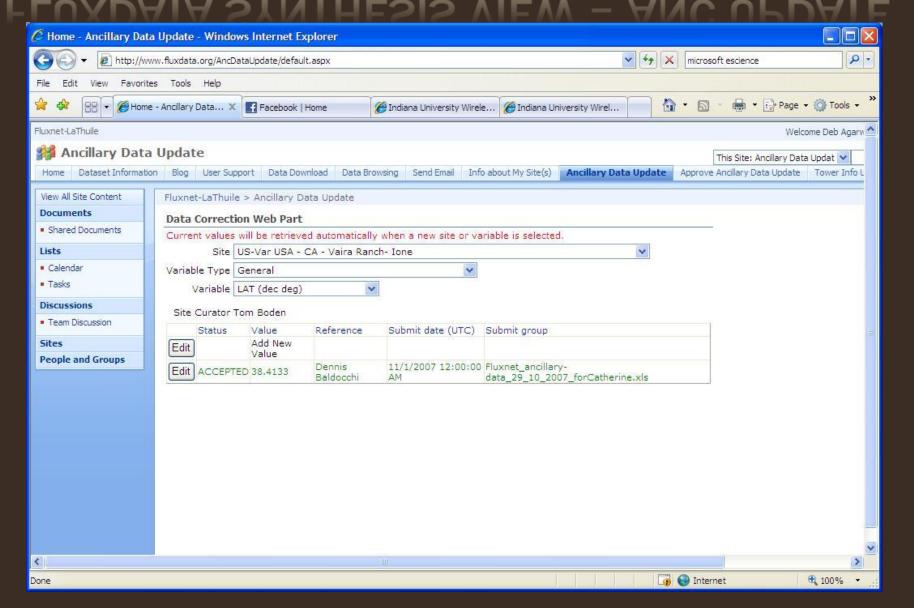
#### FLUXDATA SYNTHESIS VIEW - DOWNLOAD



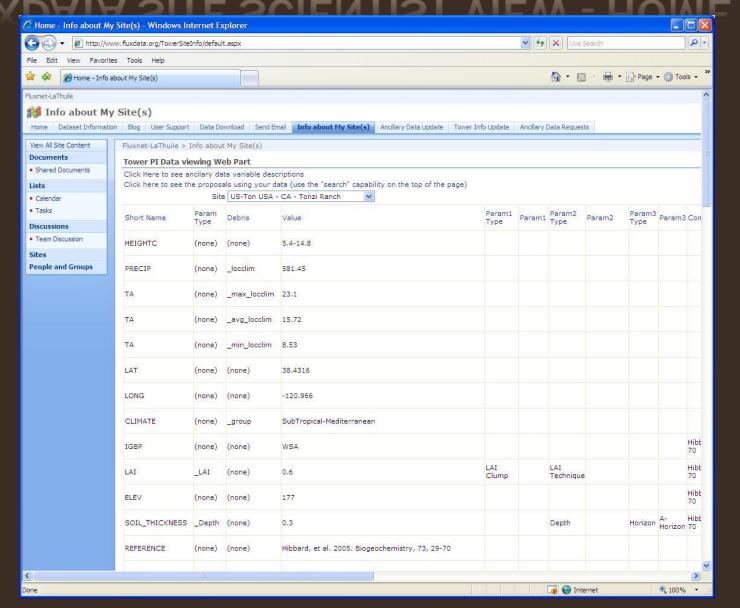
#### FLUXDATA SYNTHESIS VIEW - BROWSING



## FLUXDATA SYNTHESIS VIEW - ANC UPDATE



## FLUXDATA SITE SCIENTIST VIEW - HOME



## FLUXDATA DESIGN

- Minimize the barrier to entry
  - Put as much as possible in the public domain
- Focus on functionality targeted at improving the science experience
  - Aggregate and data quality reports
  - Data browsing
  - Easy communication with measurement site scientists
  - Easy ability to generate typical analysis graphs
- Include critical content needed by a majority of collaborators
  - Data download
  - Access to ancillary data about sites
- Avoid adding extraneous functionality
- Listen to the target users
  - Understand what is important to them
  - Read their papers and identify typical analyses and techniques
  - How they work with the data (units/time periods/etc)
- Develop a relationship of mutual trust

Desperate users are the best kind!

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